

**System and Method for JIT Memory Footprint  
Improvement for Embedded Java Devices**

**ABSTRACT**

A system and method for reclaiming memory occupied by  
5 compiled code resulting from a Just-in-Time (JIT) compiler  
is provided. An address space used to store code resulting  
from a JIT compiler is memory mapped using a special  
filesystem. A map is maintained identify method name and  
corresponding JIT pages. When the memory manager needs  
10 more space, it requests that the special filesystem write  
the data from memory back to nonvolatile storage. The  
special filesystem acts as if the data was written. When  
the code is subsequently called, a page fault and an  
invalid operation exception occur and are handled. The  
15 data in the map is used to recompile the method to the same  
address space and the faulting instruction is re-executed.